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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,998	09/28/2001	Darren J. Cepulis	1662-41000 JMH (P01-3721)	4844
23505	7590	05/05/2005	EXAMINER CHEN, TSE W	
CONLEY ROSE, P.C. P. O. BOX 3267 HOUSTON, TX 77253-3267			ART UNIT 2116	PAPER NUMBER

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/965,998	Applicant(s) CEPULIS ET AL.	
	Examiner Tse Chen	Art Unit 2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3,7,8,17,18 and 23-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,3,7,8,17,18 and 23-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment dated March 1, 2005.

Claims 2-3, 7-8, 17-18, and 23-26 are presented for examination. Applicant has canceled claims 1, 4-6, 9-16, 19-22, and 27-29.

Election/Restrictions

Applicant's election with traverse of Group II in the reply filed on March 1, 2005 is acknowledged. Applicant's traversals have been fully considered but they are not persuasive as the following details.

Applicant alleges that "there will be no additional burden on the Examiner to examine the entire application" because "the searches will be different, not that the different searches will be a serious burden". Examiner reminds Applicant that a different search does not preclude a serious burden since a different search will involve a different strategy and a different analysis of previously cited/newly found references. In the instant case, Examiner refers Applicant to form PTO-892 in this Office Action and note the numerous newly cited references as a result of the different search.

Applicant further alleges that Groups II and III of the restriction requirement "neither expressly stated, nor implicitly required, that the available drivers are shown on a display device." However, Applicant then supports the allegation by asserting from the specification that "inasmuch as computer system is preferably a server system, the computer system *may* not have a dedicated display device." Firstly, Applicant's cited support does not indicate an absolute restriction [i.e., "*may* not have" as opposed to "*must* not have"]. Ergo, Examiner is correct in interpreting that there are at least two sets

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of claimed inventions: a broader Group I that *does not* require a display and a more limiting Groups II and III that does require a display. Secondly, Applicant's attempt to link the cited support to the allegation has no bearing. Applicant's allegation rests on the definition of "shown" [and its various forms], but the cited support makes absolutely no reference to the word "shown" or its various forms. Ergo, Examiner is entitled to interpret "shown" [and its various forms] as requiring a display.

The requirement is still deemed proper and is therefore made FINAL.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: terms related to the non-required [e.g., delineate] and required use of a display device [e.g., show] should be clearly defined in reference to paragraph 0024 of the specification that stipulates "inasmuch as computer system is preferably a server system, the computer system *may* not have a dedicated display device." Examiner will interpret "shown" [and its various forms] as requiring a display for current prosecution.

Findings

1. Madden et al., U.S. Patent 6178503, hereinafter Madden, discloses a method of providing operating system drivers [other files] during an operating system installation on a computer system [abstract; col.8, ll.54-59].
2. Madden discloses the method comprising storing a first set of operating system drivers [other files] operable with a first operating system [OS C 110] in a read only memory (ROM) [permanent storage 124; col.5, ll.63-66] of the computer

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system [col.8, ll.47-59; drivers needed for operating system to run are depicted in col.11, l.18 – col.17, l.5].

3. Madden discloses the method comprising storing a second set of operating system drivers operable with a second operating system [OS D 112] in the ROM [col.8, ll.47-59; drivers needed for operating system to run are depicted in col.11, l.18 – col.17, l.5].
4. Madden discloses the method comprising having only operating system drivers operable with the operating system to be installed available for copying [col.8, ll.54-59]
5. Madden discloses the method comprising storing a first floppy image having a first set of operating system drivers operable with a first operating system [OS C 110] [col.8, ll.47-59; the image comprising all the files and structural information depicted in col.11, l.18—col.17, l.5], the first floppy image stored in a read only memory (ROM) [permanent storage 124; col.5, ll.63-66] of the computer system.
6. Madden discloses the method comprising storing a second floppy image having a second set of operating system drivers operable with a second operating system [OS D 112] [col.8, ll.47-59, the image comprising all the files and structural information depicted in col.11, l.18—col.17, l.5], the second floppy image stored in the ROM [permanent storage 124; col.5, ll.63-66].
7. Madden discloses the method comprising providing one of the first and second floppy images during the operating system installation [col.8, ll.54-59].

8. Madden discloses the advantage of multiple operating systems is to utilize programs or files that operate under a previous operating system version [col.9, ll.15-26].
9. Agnihotri et al., US 6763456, hereinafter Agnihotri, discloses a method comprising showing the contents residing on a memory [nvram] by a BIOS routine [col.8, ll.29-38; it is well known in the art to show contents that are files where files represent drivers].
10. Agnihotri discloses a computer system wherein the BIOS programs show the contents that reside in the random access memory [nvram] area of an address space [col.8, ll.29-38].
11. Agnihotri discloses the advantage of showing the contents of a memory is the facilitation of error handling in emergency situations [col.8, ll.29-55].
12. Alcorn et al., U.S. Patent 6106396, hereinafter Alcorn, discloses a method of providing operating system drivers during an operating system installation on a computer system [fig.1; electronic casino gaming system; col.6, ll.14-29] [col.6, ll.24-29; operating system drivers are required in order for operating systems to operate adequately].
13. Alcorn discloses the method comprising storing the operating system drivers on a read only memory (ROM) [14; 50 and 52] within the computer system, the operating system residing on the ROM as files [col.9, ll.38-44; it is well known in the art that entities such as data, applications and drivers are stored as files for access].

14. Alcorn discloses the method comprising copying at least one of the operating system drivers from a drive [52] of the computer system during the operating system installation by invoking basic input output system (BIOS) routines [col.9, ll.49-56].
15. Alcorn discloses a read only memory (ROM) device [14].
16. Alcorn discloses the ROM device comprising a basic input output system (BIOS) program [col.9, 38-44].
17. Alcorn discloses the ROM device comprising a set of hardware drivers [col.9, 38-44].
18. Alcorn discloses the BIOS program that is adapted to, when executed by a microprocessor [12], make the set of hardware drivers available for copying during installation of an operating system [col.9, ll.49-56].
19. Alcorn discloses a computer system [fig.1].
20. Alcorn discloses a computer system comprising a CPU [12].
21. Alcorn discloses a computer system comprising an expansion bus [27] coupled to the CPU.
22. Alcorn discloses a computer system comprising a ROM [14] coupled to the expansion bus, wherein the ROM stores BIOS programs.
23. Alcorn discloses the advantage of authenticating a computer system is the assurance of system integrity [col.5, ll.43-57].
24. Wu discloses a method comprising copying at least one of the operating system drivers from a virtual disk drive [virtual option rom] of the computer system

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during the operating system installation [col.4, ll.12-51; operating system drivers are needed to operate device].

25. Wu discloses the method of copying at least one of the operating system drivers from a virtual disk drive by invoking basic input output system (BIOS) routines [col.4, ll.12-51].

26. Wu discloses the method of copying at least one of the operating system drivers from a virtual disk drive by accessing the operating system drivers residing on a ROM as files stored on the virtual disk drive by the BIOS routines [col.4, ll.12-51; virtual option rom is built with drivers needed to operate device].

27. Wu discloses a BIOS program that makes the set of hardware drivers [drivers needed to operate devices] available for copying during installation of an operating system by providing the hardware drivers on a virtual disk drive [virtual option ROM] [col.4, ll.12-51].

28. Wu discloses a computer system [fig.1] wherein the BIOS programs of the ROM accesses a virtual floppy drive [virtual option rom] whose contents reside in a memory area of the virtual address space [col.4, ll.12-51; contents of virtual drives are stored in virtual address space to facilitate access as if actual drive exists].

29. Wu discloses a computer system [fig.1] wherein the BIOS programs of the ROM accesses a virtual floppy drive [virtual option rom] whose contents reside in the ROM area of the virtual address space [col.4, ll.12-51; contents of virtual drives are stored in virtual address space to facilitate access as if actual drive exists].

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30. Wu discloses the advantage of accessing a virtual ROM is the flexibility gained in the booting process [col.2, ll.50-57].
31. Puckette, U.S. Patent 6385721, discloses a method comprising requesting disk services to a disk drive [mass storage device 30] by invoking interrupt 13h BIOS services directed to the disk drive [col.9, ll.37-40].
32. Puckette discloses a method comprising returning a file name for at least one of the operating system drivers by the interrupt 13h BIOS routines as if the operating system drivers resided on the disk drive [col.9, ll.37-40; reading boot record enables the reading of files].
33. Puckette discloses the advantage of Puckette's teaching is the facilitation of determining whether a disk drive can be accessed [col.9, ll.35-45].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 17, 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alcorn in view of Wu and Agnihotri.

In re claim 2, Alcorn discloses each and every limitation of the claim as set forth in findings 12-14. Alcorn did not discuss a virtual drive or the use of BIOS routines to show contents of a memory. Wu teaches a method comprising copying at least one of the operating system drivers from a virtual disk drive of the computer system during the operating system installation [findings 24-26] in order to increase flexibility in the

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booting process [finding 30]. Agnihotri teaches a method comprising showing the contents residing on a memory by a BIOS routine [finding 9] in order to facilitate error handling in emergency situations [finding 11]. It would have been obvious to one of ordinary skill in the art, having the teachings of Alcorn, Wu and Agnihotri before him at the time the invention was made, to modify the system taught by Alcorn to include the teachings of Wu and Agnihotri, in order to obtain the method comprising copying at least one of the operating system drivers from a virtual disk drive of the computer system during the operating system installation by invoking BIOS routines and showing the operating system drivers residing on the ROM as files stored on the virtual disk drive by the BIOS routines. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to increase flexibility in booting and facilitate error handling in emergency situations.

In re claim 17, Alcorn, Wu and Agnihotri disclose each and every limitation as discussed above in reference to claim 2 and additionally, in findings 15-18, and 27.

In re claim 23, Alcorn, Wu and Agnihotri disclose each and every limitation as discussed above in reference to claim 2 and additionally, in findings 10, 19-22, and 28. Examiner hereby takes Official Notice that it is well known in the art to map a virtual floppy drive whose contents reside in the RAM area of the virtual address space in order to facilitate indirect access to local or remote drives.

In re claim 24, Alcorn, Wu and Agnihotri disclose each and every limitation as discussed above in reference to claim 2 and additionally, in findings 19-22, and 29.

As to claim 25, Alcorn, Wu and Agnihotri disclose each and every limitation as discussed above in reference to claim 24 and additionally, Alcorn discloses the ROM [52]

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that contains operating system drivers necessary to interface an operating system of the computer system with hardware [18] of the computer system [col.9, ll.38-60].

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alcorn, Wu and Agnihotri, as applied to claim 2 above, and in further view of Puckette.

In re claim 3, Alcorn, Wu and Agnihotri disclose each and every limitation as discussed above in reference to claim 2. Alcorn, Wu and Agnihotri did not discuss the details of accessing the virtual drive. Puckette teaches a method comprising requesting disk services to a disk drive [findings 31-32] in order to determine whether a disk drive can be accessed [finding 33]. It would have been obvious to one of ordinary skill in the art, having the teachings of Puckette, Alcorn, Wu and Agnihotri before him at the time the invention was made, to modify the system taught by Alcorn, Wu and Agnihotri to include the teachings of Puckette, in order to obtain the method comprising the claimed limitations. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to determine whether a disk drive can be accessed.

Claims 7, 18 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alcorn, Wu and Agnihotri as applied to claims 2, 17, and 25 above, and further in view of Madden.

In re claims 7, 18, and 26, Alcorn, Wu and Agnihotri disclose each and every limitation of the claim, as discussed above in reference to claims 2, 17, and 25. Alcorn, Wu and Agnihotri did not disclose explicitly employing multiple operating systems. Madden teaches a method comprising storing on the ROM two sets of operating system drivers and having only operating system drivers operable with the operating system to be installed available for copying [findings 1-4]. It would have been obvious to one of

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ordinary skill in the art, having the teachings of Alcorn, Wu, Agnihotri and Madden before him at the time the invention was made, to modify the system taught by Alcorn, Wu and Agnihotri to include the storing of multiple operating systems and associated drivers as taught by Madden, in order to obtain a way to store on the ROM a multiple set of operating system drivers operable with different operating systems. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to utilize programs or files that operate under a previous operating system version [finding 8].

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alcorn, Wu, Agnihotri and Madden, as applied to claim 7 above, and in further view of Puckette.

In re claim 8, Alcorn, Wu, Agnihotri and Madden disclose each and every limitation as discussed above in reference to claim 7. Alcorn, Wu, Agnihotri and Madden did not discuss the details of accessing the virtual drive. Puckette teaches a method comprising requesting disk services to a disk drive [findings 31-32] in order to determine whether a disk drive can be accessed [finding 33]. It would have been obvious to one of ordinary skill in the art, having the teachings of Puckette, Alcorn, Wu, Agnihotri and Madden before him at the time the invention was made, to modify the system taught by Alcorn, Wu, Agnihotri and Madden to include the teachings of Puckette, in order to obtain the method comprising the claimed limitations. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to determine whether a disk drive can be accessed.

Allowable Subject Matter

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The indicated allowability of claims 2-3, 7-8, and 23-26 are withdrawn in view of the newly discovered reference(s) to Wu and Agnihotri. Rejections based on the newly cited reference(s) are discussed above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additionally cited U.S. patent documents describe various systems associated with virtual memories as well as various well-known elements in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tse Chen whose telephone number is (571) 272-3672.

The examiner can normally be reached on Monday - Friday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tse Chen
April 25, 2005


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